

APPENDIX  
CLAIMS ON APPEAL

1. A terminal for use with a socket, the terminal comprising:

a pin engaging portion having a pair of contact arms which are positioned to make electrical engagement with a mating pin;

a retention portion extending from the pin engaging portion, side edges of the retention portion being dimensioned to create a frictional interference with side walls of a cavity of the socket;

a mounting portion extending from the retention portion in an opposite direction from the pin engaging portion, the mounting portion having two resilient legs <sup>A1</sup> that are separated by an opening, the opening extending from proximate the retention portion to a bridge which extends between the two resilient legs, <sup>A2</sup> and the mounting portion having an end which is configured to be soldered to a substrate.

2. The terminal as recited in claim 1 wherein the pair of contact arms are nonsymmetrical, a first contact arm of the pair of contact arms is configured to have a longer electrical path across which signals are transmitted than a second contact arm.

3. The terminal as recited in claim 2 wherein a bight integrally connects the first and second arms together, a centerline of the bight is offset from a centerline of the terminal.

4. The terminal as recited in claim 3 wherein the first contact arm has a reduced thickness compared to the second contact arm, whereby the first contact arm is configured to have a matched inductance to the second contact arm.

5. The terminal as recited in claim 1 wherein the retention portion is positioned proximate the pin engaging portion, a neck member integrally attaches the pin engaging portion to the retention portion, the neck member providing the flexibility required between the retention portion and the pin engaging portion to allow the pin engaging portion to move relative to the retention portion to compensate for respective mating pins which are slightly misaligned.

8. The terminal as recited in claim 1 wherein the mounting portion has a pair of positioning members that are loosely received in slots provided in the socket to allow for movement of the two resilient legs relative to the retention portion.

10. The terminal as recited in claim 1 wherein the contact arms have a reduced material thickness in high stress areas to increase the compliancy of the contact arms and reduce the spring rate.

11. A terminal for use with a socket, the terminal comprising:  
a pin engaging portion having a pair of nonsymmetrical contact arms which are positioned to make electrical engagement with a mating pin, a first contact arm of the pair of contact arms is configured to have a longer electrical path across which signals are transmitted than a second contact arm, the first contact arm has a reduced thickness compared to the second contact arm, whereby the first contact arm is configured to have a matched inductance to the second contact arm;

a retention portion extending from the pin engaging portion, side edges of the retention portion being dimensioned to create a frictional interference with side walls of a cavity of the socket; and

a mounting portion extending from the retention portion in an opposite direction from the pin engaging portion, the mounting portion having a solder pad for soldering to a substrate/;  $A_3$

12. The terminal as recited in claim 11 wherein a bight integrally connects the first and second arms together, a centerline of the bight is offset from a centerline of the terminal.

13. The terminal as recited in claim 11 wherein the retention portion is positioned proximate the pin engaging portion, a neck member integrally attaches the pin engaging portion to the retention portion, the neck member providing the flexibility required between the retention portion and the pin engaging portion to allow the pin engaging portion to move relative to the retention portion to compensate for respective mating pins which are slightly misaligned.

14. The terminal as recited in claim 11 wherein the mounting portion has two resilient legs which extend from the retention portion.

15. The terminal as recited in claim 14 wherein the two resilient legs are separated by an opening, the opening extending from proximate the retention portion to a bridge which extends between the two resilient legs.

11  
16. The terminal as recited in claim ~~15~~ wherein the two resilient legs have positioning members extending therefrom at a distance spaced from the retention portion, the positioning members cooperate with slots provided in the socket and are loosely retained therein to allow for movement of the two resilient legs relative to the retention portion.

17. The terminal as recited in claim 16 wherein the positioning members are positioned proximate the solder pad such that the lateral movement of the solder pad will be controlled.

11  
18. The terminal as recited in claim ~~14~~ wherein the solder pad is spaced from the retention portion a sufficient distance to allow the two resilient legs to resiliently compensate for misalignment or movement of the solder relative to the solder pad.

19. The terminal as recited in claim 11 wherein the contact arms have a reduced material thickness in high stress areas to increase the compliancy of the contact arms and reduce the spring rate.